



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,927	07/03/2007	Roclof Thiewes	HONE.304US01.1271.1101101	7937
28075 7590 03/31/2009 CROMPTON, SEAGER & TUFTE, LLC 1221 NICOLLET AVENUE SUITE 800 MINNEAPOLIS, MN 55403-2420			EXAMINER PRICE, CARL D	
			ART UNIT 3749	PAPER NUMBER
			MAIL DATE 03/31/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/597,927		THIEWES ET AL.	
	Examiner		Art Unit	
	Carl D. Price		3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/11/2006 (preliminary amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/11/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3749

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "it". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims Rejected under 35 U.S.C. 102(b)

Claims 14, 16, 26, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by **DE 197 33 768**.

DE 197 33 768 shows and discloses shows a mixing device for mixing gas (12) and combustion air (6) for a gas burner (1), it being possible for a mixture of gas and combustion air that is provided by the mixing device to be fed to the gas burner by means of a blower (2), said mixing device comprising:

a housing (10); and

a venturi nozzle (11), wherein the venturi nozzle is integrated in the housing in such a way that the housing and the venturi nozzle are formed as a monolithic unit; and

wherein the monolithic unit forms a flow duct for gas and combustion air, it being possible for combustion air to be sucked in at an inlet opening of the monolithic unit, the

Art Unit: 3749

blower acting at an outlet opening of the monolithic unit, and the blower providing a suction pressure to suck in the mixture of gas and combustion air through the outlet opening.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims Rejected under 35 U.S.C. 103(a)

Claims 20, 21, 22, 23, 24, 25, 29, 30, 32, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **DE 197 33 768** in view of **US 3468298 (Teague, Jr. et al)**.

DE 197 33 768 shows and discloses the invention substantially as set forth in the claims with possible exception to:

- a gas regulating device fastened relative to a mixer unit, the gas regulating device including a gas outlet stub that is insertable into a corresponding recess in the monolithic unit

US 3468298 (Teague, Jr. et al) teaches, from applicant's same air and fuel gas mixer field of endeavor, a gas regulating device (5) fastened relative to a mixer unit (107, 109), the gas regulating device including a gas outlet stub (105) that is insertable into a corresponding recess in the monolithic unit. **US 3468298 (Teague, Jr. et al)** shows the fastening of the gas

Art Unit: 3749

regulating device relative to the monolithic unit includes a sealing element (gaskets and ring seals are shown in figure 2; not referenced).

In regard to claims 20, 21, 22, 23, 24, 25, 29, 30, 32, 33 and 34, for the purpose of providing a suitable gas supply and control means for the fuel gas flow, it would have been obvious to a person having ordinary skill in the art to modify the fuel supply of **DE 197 33 768** to include a flow regulating device including sealing means in the manner set forth in the claims, in view of the teaching of **US 3468298 (Teague, Jr. et al)**. In regard to claims 22, 30 and 32, the threaded fasteners (e.g. – 5, and adjacent numeral 7; figure 2) securing the regulator to the housing are deemed the structural and functional equivalent to applicant's only broadly claimed "quick-acting" closure fastener.

In regard to claims 23 and 33, Official Notice is taken that it is known to use quick acting securing clip type conduit flow connectors in the gas burner filed of endeavor for the purpose of easily and readily securing burner feed means. Therefore, in view of that which is well known and for the known purposes, it would have been obvious to a person having ordinary skill in the art to modify **DE 197 33 768** to optionally include a snap clip type fastener to secure the venturi and fuel feed flow connections (see for example: **US 6332773 Kuhn**).

Claims Rejected under 35 U.S.C. 103(a)

Claims 15, 17 and 18 and are rejected under 35 U.S.C. 103(a) as being unpatentable over **DE 197 33 768** in view of **US 2001/0055709 (Sang)**.

DE 197 33 768 shows and discloses the invention substantially as set forth in the claims with possible exception to:

- the monolithic unit is formed from plastic.

US 2001/0055709 (Sang) teaches, from applicant's same venturi nozzle field of endeavor, that the production of convergent-divergent nozzles, such as so-called laval or venturi nozzles, usually takes place by machining a blank. Irrespective of the material used, **such as metal, ceramic or plastic**, the machining of the convergent-divergent flow cross section is very

Art Unit: 3749

laborious. Nozzles made of metal are usually produced by a metal-removing operation by turning or eroding. Nozzles made of ceramic may be produced by powder injection molding or sintering, nozzles made of plastic may be produced by injection molding. Particularly for ceramic and plastic nozzles, a complex mold is necessary for this operation, in order to produce the undercut through the convergent-divergent bore.

In regard to claims 15 and 17, for the purpose of providing a suitable material for forming the venturi, it would have been obvious to a person having ordinary skill in the art to make the **DE 197 33 768** of plastic material, in view of the teaching of **US 2001/0055709 (Sang)**. Further, in regard to claims 17 and 18, Official Notice is taken that blower housing are known to be made from metal and to include inlet supporting plates with fasteners, such as threaded bolts, to secure inlet elements thereto (See for example: **US 4830600 (VerShaw et al)**). Therefore, in regard to claims 17 and 18, in view of that which is well known and for the known purpose, it would have been obvious to a person having ordinary skill in the art to provide the blower of **DE 197 33 768** with a metal inlet support plate and “quick” closure fasteners, in the form of threaded bolts.

Claims Rejected under 35 U.S.C. 103(a)

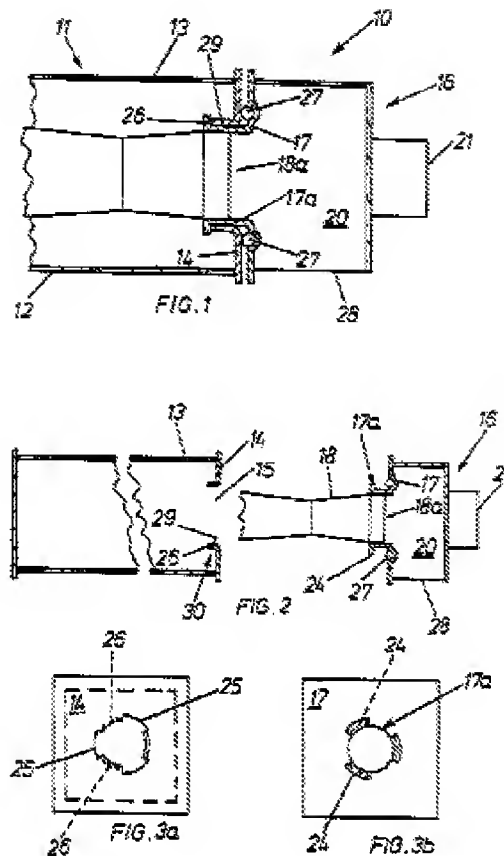
Claims 19 and 31 and are rejected under 35 U.S.C. 103(a) as being unpatentable over **DE 197 33 768** in view of **US 2001/0055709 (Sang)** or **US 3468298 (Teague, Jr. et al)**, respectively, as applied to claims 18 and 29 above, and further in view of **GB 1397536**.

DE 197 33 768 shows and discloses the invention substantially as set forth in the claims with possible exception to:

- the quick-acting closure is formed as a bayonet closure.

GB 1397536 teaches, from applicant's same gas mixer burner field of endeavor, that it is known to use bayonet type flow joint fasteners as quick connect joint means (17, 24, 25) in gas mixer burners for securing a venturi mixer housing to further burner components (13). **GB 1397536** further uses a seal (27).

Art Unit: 3749



In regard to claims 19 and 31, for the purpose of providing a suitable alternative readily and selectively operable fluid joint between the venturi housing and blower housing which requires no tools for operation, it would have been obvious to a person having ordinary skill in the art to provide **DE 197 33 768** with a bayonet and seal type flow joint, in view of the teaching of **GB 1397536**.

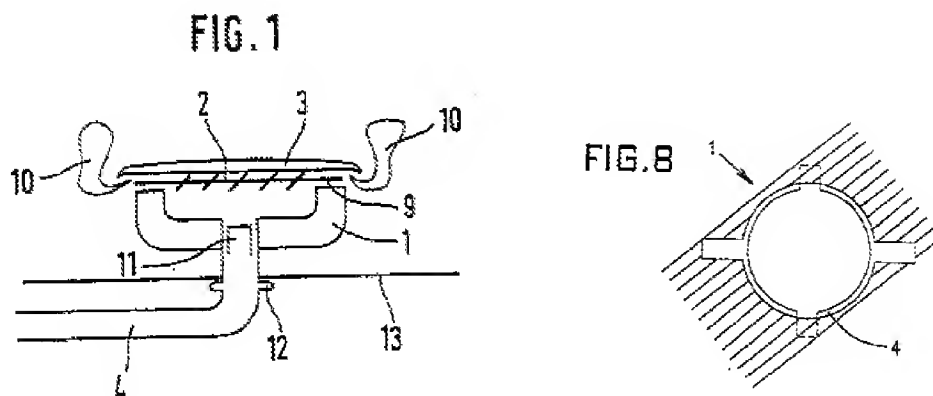
Conclusion

See the attached USPTO for, 892 for prior art made of record and not relied upon which is considered pertinent to applicant's disclosure.

US 5901695 (Deptolla) teaches, from applicant's same gas mixer burner field of endeavor, that it is known to use bayonet type flow joint fasteners as quick connect joint means (figure 8) in gas mixer burners for securing a venturi mixer housing to further burner inlet

Art Unit: 3749

components (1). In another embodiment (FIG. 8), the burner head 1 can also be fixed by means of an easily detachable connection, e.g. a bayonette closure, on the mixing pipe.

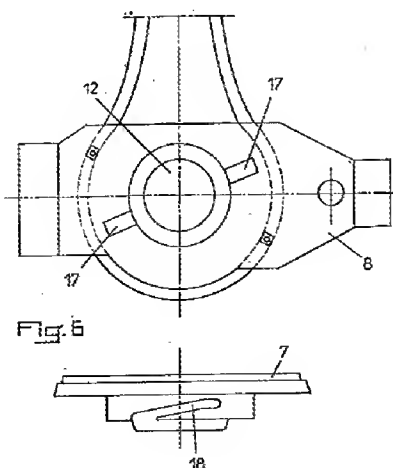


GB 2036295 shows a gas burner comprises a body 1 formed by two sheet metal shells 2, 3, joined together by flanges along their margins and shaped to constitute a body of Venturi tube form with an expansion chamber 5 and a chimney tube 6. A bracket 8 is secured to the base 10 of a cooking apparatus and is provided with a flange 9 to locate the burner body. A burner head 7 extends through a central aperture 12 of the bracket 8, the latter being provided with resilient tongues to engage in oblique slots 18 of the head 7 so that the latter is releasably fastened by means of the **bayonet joint type**. Screws 15 engage in nuts 14 secured to the bracket 8 in order to hold a dished ring 16 which engages the upper wall 11 of the cooking apparatus housing. An igniter 13 is secured in a hole in the bracket 8.

3/3

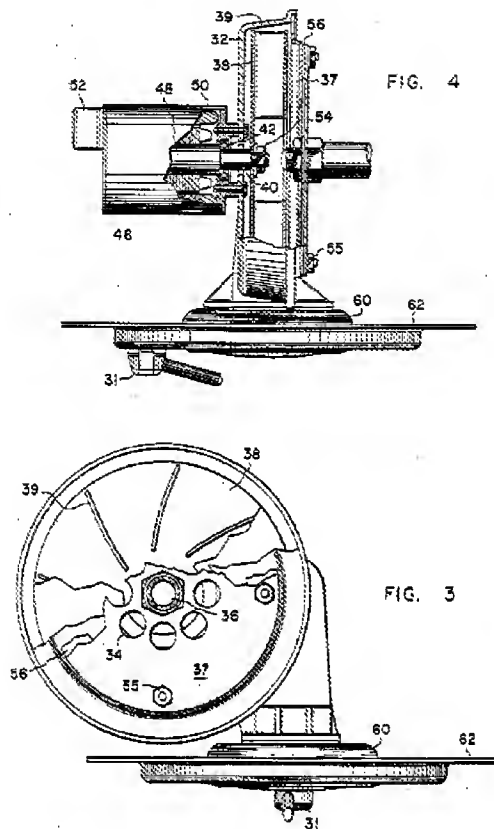
2036295

Fig. 5

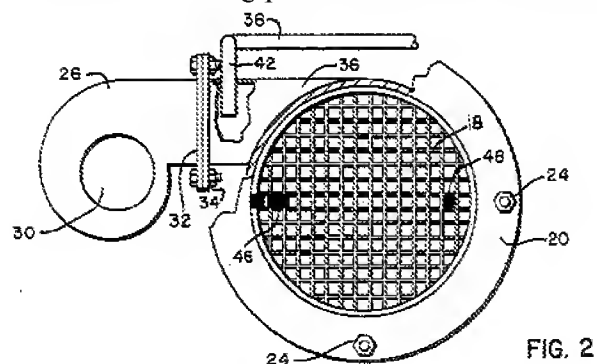


Art Unit: 3749

US 4830600 (VerShaw et al) shows an mounting plate for a fuel supply means (36) with threaded fasteners (55) on a blower.



US 4224019 (Dilmore) shows an mounting plate with threaded fasteners on a blower.



Art Unit: 3749

USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl D. Price whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carl D. Price/

Primary Examiner, Art Unit 3749

cp